



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

Roch.
D3319-1

Job Sheet 167108



Part No: D3319-1

Job Qty: 16 ea

Part Name: Forward Wearplate



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 10/24/17

Job Tracking No:

Due Date: 10/31/17

Created By: Mario Poulin

Type: Stock

Description:

Customer: Heliswiss Iberica SA (CHELI02)

Hangar 4, Lado Norte, Aeropuerto De Sabadell, Barcelona Sabadell, , 08205 Spain ph:011 34 93 720 6090
fx:34-937-100130.

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time
90	Start up Operation	16 Ea		10/30/17	0.00	0.00	Start Up Large Fab1	<i>Se</i>
100	Waterjet	16 pcs		10/30/17	0.00	1.67	Waterjet1	<i>Se</i>
120	QC	16 pcs		10/30/17	0.00	0.00	QC8	
140	Brake NC	16 pcs		10/30/17	0.07	1.16	Brake NC 1	
150	QC	16 pcs		10/30/17	0.00	0.00	QC5	
160	Large Fab	16 pcs		10/30/17	0.00	4.11	Large Fab 6	
170	QC	16 pcs		10/30/17	0.00	0.00	QC10	
180	QC	16 pcs		10/30/17	0.00	0.00	QC5	
190	Powdercoat	16 pcs		10/31/17	0.00	0.37	Powdercoat3	
200	QC	16 pcs		10/31/17	0.00	0.00	QC3	
210	Packaging	16 pcs		10/31/17	0.00	0.00	Packaging3	
220	QC21-SA	16 Ea		10/31/17	0.00	0.00	QC21	

Part Op 100 - 1-Cut as per Dwg D3319

Descriptions: 140 - 1- Form using DT8326 & DT8261 as per Dwg D3319Rev: _____ 2- Form flat on press using DT8776 block

160 - 1- Layout weld location as per Dwg D3319 using jig D3319-1T3 2- Weld hard surface using DT8755 per QSI 004

and Dwg D3319 Rev: _____ Qty Part Number Description Batch A/R N/A 228/7560 Hardcoat Rod _____

190 - START TIME: _____

210 - Identify on inside surface using a permanent fine point marker with the following: TCCA-PDA, Dart Aerospace Ltd.

P/N: D3319-1, B/N: BXXXXX For Product Eligibility see PDA05-18 and Stock Location: _____

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M1010S18GA	10	100	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Wearplate	4.980inches $\pm$ 0.030	5.010 4.950		
2	Wearplate	1.600inches $\pm$ 0.010	1.610 1.590		
3	Wearplate	2.660inches $\pm$ 0.010	2.670 2.650		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

Date: _____

DISPOSITION

work ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐
Machining ☐
Thermoforming ☐
Large Fab ☐

Cross tube ☐
Small Fab ☐
Finishing ☐
Composite ☐

Water Jet ☐
Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐
Supplier ☐

Engineering ☐
Quality ☐
Other ☐

Effective: _____

MRB (QS1042) Approval

Disposition

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Job No: 167108
Mfg Date: 10/25/17

Start up operation
16
D3319-1

PART NO:
Revision:
Operation:
Quantity:
Change No:

Forward Wearplate
D3319-1

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaero.com

Root Cause

Environment	☐	No Re-verification	☐
Design	☐	Operator	☐
Doc/Data	☐	Offset/Setup	☐
Equip/Tooling	☐	Supplier	☐
Handling/Pre	☐	Training	☐
Material	☐	Use for Testing	☐
Internal Transport	☐	Poor Information	☐
Tribal Knowledge	☐	Rushing	☐
LOA	☐	Product Improvement	☐
Substation	☐	Process Improvement	☐
Past Expiry Date	☐	Manufacturing Process	☐
Misidentified	☐	Past Due	☐

Pressure,
Bending
Centre Not Concentric
Cracks
Crimp/Kink/Ripple/Wave
Cuffs
Crushing
Heat Treat
Wave/Twist in Tube
Marks/Chatter

Defect
Complete/Unqualified
Contaminated
Countersink
Cut Too Short
Instructions Incomplete/Unclear
Drill Holes

CAUSE CATEGORY

☐ Power Loss/Surge	☐ Positioned Wrong
☐ Folio/Program	☐ Outside Dimensions
☐ Grain	☐ Over/Under tolerance
☐ Weld	☐ Part Incorrect
☐ Wrong Stock Pulled	☐ Part Lost/Missing
☐ Out of Sequence	☐ Part Moved
☐ Off-set	☐ Drawing
☐ Mislabeled	☐ Finish
☐ Fit/Function	☐ Misread
☐ Misaligned/off center	☐ Turning Sequence

OTHER: _____

4	Wearplate	3.190inches $\pm$ 0.010	3.200 3.180
5	Wearplate	3.563inches $\pm$ 0.010	3.573 3.553
6	Wearplate	4.710inches $\pm$ 0.030	4.740 4.680
7	Wearplate	0.600inches $\pm$ 0.030	0.630 0.570
8	Wearplate	10.576inches $\pm$ 0.010	10.586 10.566
9	Wearplate	11.942inches $\pm$ 0.010	11.952 11.932
10	Wearplate	18.090inches $\pm$ 0.030	18.120 18.060
11	Wearplate	0.316inches + 0.006 - 0.001	0.322 0.315
12	Wearplate	0.546inches $\pm$ 0.010	0.556 0.536
13	Wearplate	0.316inches + 0.006 - 0.001	0.322 0.315
14	Wearplate	0.670inches $\pm$ 0.010	0.680 0.660
15	Wearplate	0.190inches + 0.005 - 0.001	0.195 0.189
16	Wearplate	3.815inches $\pm$ 0.010	3.825 3.805
17	Wearplate	16.100inches $\pm$ 0.010	16.110 16.090

Plex 10/24/17 3:44 PM dart.poulin.mario

QA Closed:

Date:

Work Order update only

Work Order: _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS							
Part No. _____				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐				
				Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐				
NCR No. _____				Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐				
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval			
Description Work Order Deviation				Disposition							
								Completed By			
								Lead hand / Supervisor Approval Verification			
								QC / QA Coordinator Approval			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐ OTHER : _____									

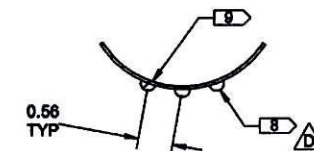
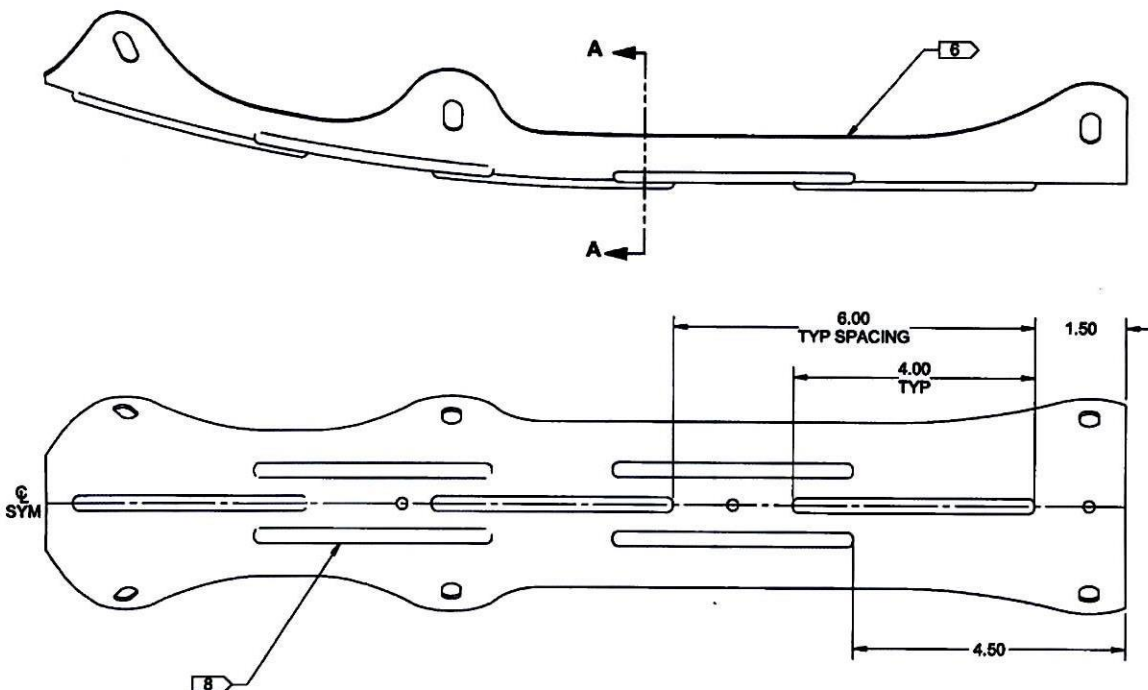
DART AEROSPACE LTD		Work Order:	167108
Description: Wearplate		Part Number:	D3319-1
Inspection Dwg: D3319	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.98	+/-0.030	4.99	1		VDC-02	
1.600	+/-0.010	1.6006	1		Tape	
2.660	+/-0.010	2.664	1			
3.190	+/-0.010	3.191	1			
3.563	+/-0.010	3.564	1			
4.71	+/-0.030	4.72	1			
0.60	+/-0.030	0.61	1			
10.576	+/-0.010	10.577	1			
11.942	+/-0.010	11.943	1			
18.09	+/-0.030	18.10	1			
Ø0.316 x 0.546	+0.006/-0.001 x +/-0.010	Ø0.316 x 0.547	1			
Ø0.316 x 0.670	+0.006/-0.001 x +/-0.010	Ø0.316 x 0.671	1			
Ø0.190	+0.005/-0.001	Ø0.193	1			
3.815	+/-0.010	3.816	1			
16.100	+/-0.010	16.101	1			

Measured by:	SC	Audited by:		Preliminary Approval:	
Date:	17/10/25	Date:		Date:	

Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	



SECTION A-A

D3319-1 WEARPLATE
MAKE FROM D3319-1BND

RELEASED

2017 AUG 10

REN 17.414

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3319-1" PER QSI 044 6.1
- 7) WEIGHT: 1.09 lbs
- 8) BUILDUP HARD SURFACING 0.06 TO 0.13 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILDUP HARD SURFACING 0.06 TO 0.13 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)
- 9) COAT ENTIRE TOP (CONCAVE) SURFACE WITH TEXTURED COATING 0.020-0.040 THICK, PER DART QSI 005 4.9

APPROVED	DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3319 TITLE WEARPLATE DATE 17.05.09		REV. D
	DRAWN	SAD			SHEET 1 OF 8
	CHECKED	AJS			SCALE
	MFG. APPR.	DP			NTS
	APPROVED	WM	COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		
	DE APPR.	DS			
	DATE	17.05.09			

